

CENSUS BUSINESS BUILDER – A PRIMER

APRIL 2019

Transcript:

Hello my name is Andy Hait and I'm an Economist at the US Census Bureau, and today's presentation is going to be a primer of the Census Business Builder Small Business Edition. In today's primer I'm going to go through the key features of Census Business Builder Small Business Edition. This includes the features and functionality available on the splash page, the map page, and the report. Again, the presentation today is going to be on the Small Business Edition of Census Business Builder. The Regional Analyst Edition of CBB will be covered in a later presentation. To get to the Census Business Builder website we have to go to [census.gov](https://www.census.gov) and then go to CBB homepage. The demo today is going to be a live demonstration, but I wanted to quickly walk through some of the key features and functionalities that's available on the CBB homepage.

Of course, we have the links to the two versions, the two editions, of Census Business Builder; the Small Business Edition link on the left, and the Regional Analyst Edition link on the right. Just above those two tool links is a link to our overview flyers. These are flyers that associations and organizations can use when they are promoting use of Census Business Builder with newer members, so it's a simple little one sheet of paper flyer that provides key information about these two editions. We also have how-to flyers. If after today's presentation you wanted to learn some more about some of the detailed functionality that we have in Census Business Builder we have these how-to flyers as well. And of course, we have the traditional help and FAQ's that includes things like tips on how to use Census Business Builder on your mobile device and which versions of the browser are best for Census Business Builder. Off the bottom of the page there is some additional information as well, including widgets that organizations can use to post on to your website and then when a user clicks on the widget it then launches Census Business Builder. So, with that, I'm going to get out of the actual presentation and go live with the Census Business Builder demo. So, to get to Census Business Builder we start off on the main Census Bureau homepage, www.census.gov. To get to CBB we can either search for it using the Census Bureau search box or I can go to explore data, data tools and apps, and then once the application pulls up a list of all these data tools I can then scroll down through this list. Fortunately Census Business Builder begins with the letter

"C", so it's here towards the top, and we then can choose Census Business Builder. And that then brings us to the CBB home page that we were just looking at a moment ago. On this page, again, you have the links for the two editions of CBB and you have the how-to flyers, the overview flyers, help and FAQ's, etc. When I click on the Small Business Edition link here on this page, we come to what we call the splash page. The splash page is a page where you make a selection of the type of business and the location that you are interested in researching. The Small Business Edition, as its name implies, was originally designed to help entrepreneurs and small business owners access the key demographic and business data that they need for their business plan, for their loan application, or even just simply to research their markets better than what they had before. However, this tool is being used by a lot of other types of users, including grant writers. So, if you are interested in using this tool and you are not an entrepreneur or a small business owner, you can still use the application even if you just care about the demographic data.

So, the first step of choosing, of running this application, is that we choose the type of business that we want to research. Again, if I was a grant writer and didn't care about the type of business you do have to choose some type of business, but it doesn't really affect demographic data at all. There are two methods to select the type of business. The first method is by using these six buttons that we have here on this page. These are the six sort of broad categories that describe the most commonly opened small businesses in the United States. So, for example under the health care menu we have the nine types of businesses that are most common in small businesses; things like home health care, therapist's office, chiropractor's offices.

For today's demo we're going to pretend that we are interested in researching or opening a bakery. So, we're going to go to food services, and we're going to then choose bakeries from our menus. Now if the industry you are interested in researching is not available in this group of industries, we do have a search box here at the bottom of the application where you can type in a keyword, or even the industry title. Or, if you actually know the NAICS code, you can type in the code and it will then bring you to that industry. So, for example I could type in the word jewelry into the search box and the application would then bring me a list of all the industries related to the word jewelry, which might include jewelry manufacturers.

So, let's say we're interested in researching a bakery in the Syracuse, New York metropolitan area. The next step is to go over to the geography menu and choose the location we want to research. So, I'm going to type Onondaga which I know is the name of the county that Syracuse, New York is located in. So, I choose Onondaga County from that list and now I have two buttons that get turned on. The map button, and the create report button. If I know exactly the type of business or industry that I wanted the research I can go straight to the report. We normally recommend people go to the map to actually browse the detailed data. You might discover for example that Onondaga County, New York might not be actually the best place to open a bakery. You might want to open it in Tioga County or one of the other neighboring counties.

Now in addition to the search box the application does also include the 'my location' button. Clicking on this button zooms the application to the location where your computer is physically located. And that would also, not only include your regular personal computer laptop, tablet, etc., but this application is also mobile-optimized. If you click on the 'my location' button and you're accessing Census Business Builder from a mobile device, it will actually detect the GPS coordinates of your mobile device and zoom you to the location where your phone is physically sitting.

This is a great feature when you're driving around an area looking for an open storefront to install, to build your bakery. And you find an available storefront, you can click on the 'my location' button and the application will zoom you to where your car is actually parked. In this case we're just going to go ahead and go to the "go to map" button and the application is immediately going to zoom in on Onondaga County New York. And immediately it's going to present to us one statistic. The map always displays a particular, single statistic and in this case that statistic is total population. So, we can immediately see that there are 467,669 people that live in Onondaga County New York. Clicking around the map allows me to browse the data for neighboring counties. So, in Madison County there is 71,000 people. Clicking just south of Onondaga County; Cortland County there's 48,000 people. So, I can kind of browse around on this map. Every time I move the map the application is re-grabbing the information that is needed for that map extent. This is a cloud deployed application where all of the

data come in via API. So, as you can see the performance of the tool is pretty good. Across the top of the application is a menu bar that allows you to change the industry and the location that we are researching. So, for example, let's say after researching bakeries in Onondaga County New York I say, "I don't really feel like researching a bakery, let's look at opening a restaurant." I can choose restaurants from this menu over here without having to go back to the splash page. Same thing if I change the location. I say, "You know what, I went to school in Syracuse it's too cold, too much snow, I want to open my bakery in West Palm Beach Florida." I can choose Palm Beach County from this menu without having to go back to the splash page and the application is then going to zoom down to that location. The third menu here across the top is the 'map variables' menu. This is where we choose the variable that we are interested in viewing on the map. In Census Business Builder we have information from nine different programs. And they are grouped into these broad categories. The 'customers' data is information from the American Community Survey and that includes demographic characteristics like total population, which is the default variable, some age breakouts, and even some race and ethnicity breakouts. So, I can use this tool to research my bakery if I think I want to create some type of ethnic bakery that focuses on the Hispanic community. I can look at 'percent Hispanic' in Onondaga County to see how many Hispanics live in Onondaga county.

The tool also includes socioeconomic data, things like household income, educational attainment, disability status, employment status, and a variety of other data variables that could be valuable to an entrepreneur. And finally, it includes some housing characteristics. The number of owner versus renter-occupied housing units, what the house values are, occupancy rates, owner costs, etc. In addition to the demographic data we also have business data. Business data includes both employer and non-employer businesses. Non-employers are the little, small mom-and-pops, the people who file the 1040 schedule c or the 1040 schedule se for their business. So, under employers we have number of employer businesses, employment, payroll, and revenue. Under the non-employer side we have similar statistics, on the number of those non-employer businesses. Often it is important to look at both the employers and the non-employers when you're researching a business.

We also have some things like key ratios. If I was considering opening a bakery in a number of areas in this central New York area and wanted to compare the average payroll per employee of one county versus another county, I can select this average payroll per employee variable, and it would then allow me to view that data on the map.

We also have some data on international trade, this is data on imports and exports. The data for this tool right now you'll see is crossed out because the industry that we chose, bakeries, is not one of the industries that we publish imports and exports data. But if we had chosen a different industry, that we do publish imports and exports data you would have that data here as well.

Now in addition to the customers and businesses data we also have labor force data. Information on how many workers there are in an industry. The data are shown at the 4-digit NAICS level, and in this case we've chosen 'bakeries', so that industry is not a 4-digit industry code; it's a 6-digit code, so you can see these variables are crossed out. But if we had chosen a different industry you would have seen that as well. One of the newest data sets we've added to Census Business Builder recently is 'building permits' data. These are information on residential buildings permits that have been issued in the last year and as you can see we have information on the number of buildings, the number of units, and the value. And the data are broken out, not only for single unit (single family houses), but also for two-unit,

three-unit, four-unit, and even five-or-more-unit buildings. Often looking at the building permits data gives the business owner of entrepreneur an idea of future growth in an area. When you see a big spike in the number of building permits that might be useful to know when you're opening your business.

The next tab here across the top is consumer spending. This is actually some third party that we purchased from ESRI. They compile information on consumer expenditures and we've actually included some of their data in here as well. There's about 80 different statistics in this list. Finding out how much people spend on baked goods or for dining out for breakfast that type of information might be really valuable to a data user.

Finally, the last tab across the top here is 'my variables'. We're not going to cover this very much in today's presentation because we are going to be conducting a separate webinar specifically on the power user features of Census Business Builder. But this is the tool where you would go in it and actually upload your own data. So, let's say I'm a bakery owner and I have information about the customers of my bakery; my existing customers. Where are they physically located, how much have they spent in my bakery? If I wanted to compare those data with the data for the larger population to see how much market penetration do I have, I could upload my own data in Census Business Builder and merge it together with the Census Bureau's data. So, it's a very nice kind of feature.

I'm going to go back over to our customer's data and this time choose household income as my map variable just to let you see what the map looks like when we choose a different variable. So immediately we can see that in Onondaga County New York the median household income is \$57,271. The number over here in parens, is the margin of error so that is plus or minus \$864. Now so far, we've been looking at data just at the county level. As you can notice in the upper left-hand corner there is a menu bar that lets me change the map to look at information by state, county, city/town, zip code, or even census tract. So, if I click on zip code the map is now going to repaint and we're now looking at median household information for every single zip code on that map extent. So, if I now click on one of these zip codes over here, I can actually see that in that particular zip code the median household income is \$84,193. It's sort of a higher income area outside of the city of Syracuse. As I zoom in on the map more and more information becomes available and you may have noticed that the tract menu is grayed out from when we looked at it before; it still is. In order for tract level data I have to zoom in even further in order for me to view that most detailed level data.

Now the next feature I quickly want to talk about is the filter, which is the fourth menu option here across the top. Let's say in researching my bakery, I want to find all the areas that have certain demographic characteristics. I want, I think my bakery is going to be kind of a higher income, a higher-level clientele, and I want to find just those zip codes that contain certain demographic characteristics, or certain economic characteristics. So, to that I would go to the filter, I would add a new filter, and then I would choose a variable that I want to filter on. So, let's just pretend, for the sake of this demo, we're interested in finding all the zip codes in this area that have a high percentage of people who have a bachelor's degree. My bakery is going to be sort of catering to these educated sorts of folks. So, I would click on percent bachelor's degree or higher, select that variable. And now I get a tool bar that identifies the percentage bachelor's degree or higher for all the zip codes displayed on the map. So, we can see that it ranges from only 1.4%, which is remarkably low, to 61.2%. If I wanted to find all the zip codes that have a high percentage of people who have a bachelor's degree, I could either slide this slider bar over

to the right that then says now I'm at 31%, or I could slide and even go further to 37%, or I could even enter the values in manually.

Once I set my filter minimum and maximum, when I then apply that filter, the application is now going to go out and it is going to remove from the map all of the zip codes that don't qualify. So you can see all of these areas around here that are now in gray, these areas over here that are in gray, are the areas where you don't have a very large percentage of people that have bachelor's degree or higher and yet you have these zip codes over here to the southeast of Syracuse, to the southwest of Syracuse, and then to the north of Syracuse where you have a high percentage of people who have a bachelor's degree. So maybe my business ought to be in one of those areas. Or maybe I ought to market my business to people who live in one of those particular zip codes.

In the upper right-hand corner of the map are a few other tools that I'm going to quickly talk about. The first of them is the download map data button. This allows me to go in and download all of these zip codes that we just looked at on the map. I can download as a CSV or as an Excel file. The second menu is a reference layers map. If I wanted to overlay school district boundaries, or some other type of reference boundary over this map, I could do that using this feature. The third button is the base map feature. The standard base map that we use is a topographic base map, but if you wanted to look at satellite imagery you could change the base map to use satellite imagery base map. And finally, the last button here is the map transparency slider, that allows me to go in and actually hide the data layers so I could view more of the base map itself. People often ask me "Andy I don't know what the boundaries of this particular zip code are, what's this weird little tale over here on the zip code", you can zoom in on the map, then hide the data layer, and actually be able to see that boundary better, using the transparency slider.

One thing I didn't mention about the filter is that you can do up to six filters at a time. So, if I wanted a filter on bachelor's degree and household income, and find all the zip codes that only had less than five bakeries or less than two bakeries, I can do up to six different criteria.

Now the last couple things I want to mention are first, the legend in the bottom right-hand corner, the standard legend that identifies all the different ranges that are available here. But we also have a map configuration setting. You will have noticed that the color palette that we use in Census Business Builder is a non-traditional blue and multi-colored palette.

We had some comments from users saying that they would like to use a more traditional color palette so we do have the ability to customize the map itself by changing the color scheme from the default five-color to a more traditional green-blue, and you can even change the classing method. So, if I apply that, now I'm going to be looking at a map that is actually using a more traditional dark-to-light sort of fade.

Now I'm going to go back here and delete this filter, just so you can see more of the particular map that we were just looking at. So, here's our full map again. Now, let's say we now are done doing all this analysis; I've drilled down from county, to city, to zip code, and to tracts, and I've researched my businesses, I've looked at the different variables that I care about, I downloaded some data from the map, I've set some filters. The last step of using Census Business Builder is actually generating the report that includes all of the information that we just browsed, but in a nice package report.

The way you get to that report is by using the dashboard here in the bottom of the application. In the dashboard we again have the value of what the geography you're clicking on, but we also two bar charts, and we have four additional variables. These are also completely customizable by the user. In the bottom left-hand corner though is the create report button where you can generate the report; and, for the sake of this demo, I'm going to go back out to county-level data. I'm going to go back to my Onondaga County, since that was the one that I was originally starting at, and we're now going to create the report for bakeries in Onondaga County, New York. When I click on that button, the application is now going out and it is downloading all of the information that we were just looking at. All of that county-level data, on demographic information, economic information, household income, etc. The report itself includes a cover sheet that gives me some basic information about the report. When I then scroll down, I can see, here's my demographic variables. These charts are all fully manipulable. So instead of looking at the percentage of population that's under five, if I wanted to find out where – what's the 21 and over category, I can choose '21 and over' and the chart will then repaint to show that particular map variable.

So, here's my demographic data. Below the demographic data is socioeconomic; my housing data. Below that is my businesses data on bakeries. We can see that the average of employees per business kind of went down a bit in 2014, but is now gone back up again through 2016. There's my business data; scroll down some more I have some business revenue information. Non-employer data as I mentioned is not available here, nor is the trade data; workforce information, and finally, here's some building permits data. And that consumer spending data.

Now these reports are all, of course, downloadable. You can go to the 'download data' menu, and either download it as an Excel file or CSV. If you wanted to print the report, we recommend that you download it as a PDF, and then print the PDF. If any of you have ever tried to print from a website you know that the results that you get when you print from a website are often a bit messy; so that's why we have the 'download as a PDF' option.

We can also configure this report; I can hide specific sections of the report. So, let's say I don't really care about this workforce part, or the trade part, because I knew that part of the report wasn't applicable to my industry. I can then remove those and then save that and now the report is just going to include those parts.

The margins of error; the measures of reliability of our data are by default turned off, but you do have the ability to turn them back on again using this 'display MOE's number'. And you can now see those margins of error are now displayed in parenthesis just to the right of the value – I'll turn them back off again.

The last couple of things I wanted to mention about the report, first of all, is that this report can be completely bookmarked. So, if I wanted to share this report with a friend, or a colleague, or a business lender, and I wanted them to be able to go to the report exactly how I have left it, I can send them this URL, and when they click on that URL, they would actually come right back to the exact same report, exactly where I have left it. That is also true for the map. So, if I click on this URL, and I share this map URL with a colleague, when they click on that link it will bring them literally right back to the map exactly where we had left it.

So again, to kind of summarize, we talked about the menu bar across the top of Census Business Builder where you can change your industry, your location, your map variable and your filter. We talked about the ability to drill down to more detailed levels of geography using the geography menu. We talked about the buttons and the features that is available in the upper right-hand corner, and the way to customize the map itself using the map configuration feature. We talked about the dashboard and the things that are available in the dashboard. And finally, we finished talking about the report itself. So essentially that is Census Business Builder Small Business Edition.

I'm going to back out here to my PowerPoint file, and just to close out our presentation today, I wanted to mention that if anybody has any questions about Census Business Builder, or if you need help using Census Business Builder tool, please contact me at the URL, excuse me - at the email address and the phone number provided here. Thank you so much for your time and have a great day.